

Mineral Industry Surveys

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SULFUR IN APRIL 2005

During the month, production of recovered elemental sulfur was 702,000 metric tons, according to the U.S. Geological Survey. April production was 6% lower than that of March 2005 and 10% lower than that of April 2004. Shipments were 5% lower than those of March 2005. Producers' ending stocks for April 2005 were 163,000 tons.

Although, for the most part, sulfur production has been lower in 2005 when compared to corresponding months for 2004, April showed a dramatic decrease of 30% in sulfur recovered from natural gas processing. Regional analysis shows that the decrease occurred in Petroleum Administration for Defense (PAD) Districts 4 and 5. The majority of sulfur produced from natural gas processing in the United States is recovered in these PAD districts, and a large portion of that is from Wyoming. This decrease corresponds to expectations that sulfur recovery

in this State would decrease significantly in 2005 as a result of depletion of deposits and a large project to reinject sulfur-containing acid gases.

Import and export data for April 2005 were not available at the time of publication and will be published in the Sulfur in May 2005 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for March 2005 were estimated to be 180,000 tons; exports were 41,000 tons. Imports of sulfuric acid for March 2005 were 254,000 tons; exports were 31,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Ending stocks ³
	Petroleum ²	Natural gas	Total		
2004:					
January-December	7,390	1,990	9,380	9,410	XX
January-April	2,360	657	3,020	3,050	XX
April	622	161	784	782	178
May	625	170	795	789	186
June	618	164	781	780	192
July	650	173	823	813	202
August	652	172	824	838	189
September	599	155	754	757	186
October	598	163	761	765	183
November	622	167	789	771	200
December	664	167	831	846	185
2005:					
January	571	169	740	740	179
February	547 ^r	156	704 ^r	696 ^r	188 ^r
March	577	169 ^r	746 ^r	744 ^r	185 ^r
April ^p	585	118	702	708	163
Total	2,280	612	2,890	2,890	XX

^pPreliminary. ^rRevised. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2004:						
January-December	2,010	31,300	545	28,200	2,850	76,800
January-March	520	8,510	110	8,030	717	21,100
March	180	3,640	25	2,570	225	7,210
April	180	3,060	54	2,550	279	8,040
May	180	2,830	57	2,620	265	6,880
June	180	2,560	49	2,440	247	5,980
July	160	2,790	54	2,550	251	7,150
August	160	2,050	35	1,780	221	5,290
September	160	2,460	49	2,650	240	6,850
October	160	1,740	51	2,170	220	4,370
November	150	2,650	31	1,240	186	5,700
December	160	2,660	55	2,200	226	5,400
2005:						
January	150 ^r	2,070	31	1,070	224 ^r	4,730
February	130 ^r	2,130	50	1,930	230 ^r	6,080
March	140	2,320	40	1,640	180	4,050
Total	420	6,520	121	4,640	634	14,900

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2004:									
January-December	1,920	625	72,500	206	66	6,670	2,390	780	86,300
January-March	443	144	18,200	27	9	651	494	164	20,300
March	167	54	6,760	6	2	163	176	58	7,280
April	203	66	7,710	14	5	344	221	72	8,410
May	190	62	7,230	22	7	555	222	72	8,120
June	166	54	6,350	11	3	247	192	63	7,860
July	160	52	5,660	10	3	357	172	56	6,230
August	133	43	4,920	33	11	937	194	63	6,250
September	150	49	5,080	29	9	1,090	206	67	6,480
October	176	57	6,450	19	6	946	215	70	7,480
November	160	52	5,930	11	3	289	218	71	7,500
December	140	46	4,970	30	10	655	251	82	7,610
2005:									
January	173	56	5,990	30	10	840	248	81	9,490
February	174	57	6,190	(4)	(4)	18	213	70	7,820
March	183	60	7,080	32	10	759	254	83	8,590
Total	530	173	19,300	62	20	1,620	715	234	25,900

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

⁴Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2004:					
January-December	949	63,300	204	66	21,300
January-March	126	10,300	37	12	5,830
March	102	7,080	14	5	3,190
April	128	7,710	11	4	1,380
May	87	5,190	10	3	2,370
June	36	2,000	26	8	1,610
July	19	1,720	13	4	1,280
August	157	11,500	40	13	3,210
September	107	6,590	11	4	1,090
October	127	7,250	23	7	1,850
November	31	2,280	20	7	1,590
December	130	8,740	13	4	1,120
2005:					
January	22	1,740	13	4	1,590
February	72	5,040	28	9	2,230
March	41	6,270	31	10	2,270
Total	135	13,000	72	23	6,090

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2004:			
January-December	8,460	2,850	11,300
January-March	2,150	717	2,870
March	689	225	914
April	654	279	933
May	702	265	967
June	744	247	991
July	794	251	1,050
August	681	221	902
September	650	240	890
October	638	220	858
November	740	186	926
December	716	226	942
2005:			
January	718	224 ^r	942 ^r
February ^f	624	230	854
March	703	180	883
Total	2,050	634	2,680

^eEstimated. ^r Revised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	April 2005 ^p		March 2005		Total 2005 ²		Year to date 2004 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	18	19	18	20	79	82	79	80
Natural gas	2	2	2	2	7	7	7	7
Total	20	21	20	21	87	90	86	87
PAD 2:								
Petroleum and coke	82	82	73 ^r	73 ^r	318	319	305 ^r	309 ^r
Natural gas	3	4	4	3	14	14	15	16
Total	86	86	76 ^r	76 ^r	331	332	320 ^r	325 ^r
PAD 3: ³								
Petroleum and coke	376	378	373 ^r	366 ^r	1,440	1,420	1,530 ^r	1,550 ^r
Natural gas	41	42	43 ^r	41 ^r	169	172	179 ^r	181 ^r
Total	418	421	416 ^r	407 ^r	1,610	1,600	1,710 ^r	1,730 ^r
PAD 4 and 5: ⁴								
Petroleum and coke	108	107	113 ^r	112	446	437	448 ^r	459 ^r
Natural gas	71	73	120 ^r	127 ^r	422	433	455 ^r	452 ^r
California	85	83	85	83	257	247	335 ^r	342 ^r
Total	179	180	234 ^r	239 ^r	868	870	903 ^r	911 ^r
Grand total	702	708	746 ^r	744 ^r	2,890	2,890	3,020 ^r	3,050 ^r

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis]
and dollars per metric ton for period shown)

	2005			2004
	April	March	Total	total
Production	8.54 ^p	8.78 ^r	8.80 ^r	9.38
Shipments	8.61 ^p	8.76 ^r	8.79 ^r	9.41
Exports of sulfur	NA	0.48	0.55	0.95
Imports of sulfur:				
Canada	NA	1.65 ^e	1.70 ^e	2.01
Mexico	NA	0.47	0.49	0.55
Total ²	NA	2.12 ^e	2.57 ^e	2.85 ^e
Export of H ₂ SO ₄	NA	0.37	0.29	0.20
Import of H ₂ SO ₄ :				
Canada	NA	2.15	2.15	1.92
Europe	NA	0.38	0.25	0.21
Total ²	NA	2.99	2.90	2.39
Consumption: ³				
Domestic sources	NA	8.28	8.29	8.35
Imports	NA	2.12 ^e	2.57 ^e	2.85 ^e
Total	NA	10.40	10.86	11.21
Sulfur export values ⁴	NA	\$153	\$97	\$67
Sulfur import values: ⁴				
Canada	NA	\$17	\$16	\$16
Mexico	NA	\$41	\$38	\$52
Average	NA	\$23	\$23	\$27
H ₂ SO ₄ export values ⁴	NA	\$73	\$85	\$105
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$39	\$36	\$38
Europe	NA	\$24	\$26	\$32
Average	NA	\$34	\$36	\$36

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because April trade data were not available, April consumption was not determined.

⁴Average value per ton for most recent data available.